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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,169	05/10/2007	Xavier Couillens	1022702-000323	5100
21839	7590	07/07/2010	EXAMINER	
BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			KOLLIAS, ALEXANDER C	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			07/07/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

<b>Application No.</b> 10/583,169	<b>Applicant(s)</b> COUILLENS ET AL.	
<b>Examiner</b> ALEXANDER C. KOLLIAS	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1)  Responsive to communication(s) filed on 19 April 2010.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4)  Claim(s) 15 and 20-32 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 15 and 20-32 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \*    c)  None of:
- Certified copies of the priority documents have been received.
  - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. All outstanding objections and rejections, except for those maintained below, are withdrawn in light of applicant's amendment filed on 4/19/2010.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 4/19/2010. Although Applicant has narrowed the total amounts of F1+F2+F3 in claim 15 to the range of 8 to 35 wt %, the prior art references, Schlosser et al and Yakabe, remain relevant against the present claims as discussed below. Thus, the following action is properly made final.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 15 and 20-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 15 recites that the composition comprises 8 to 35 wt % of compounds F1-F3 where the amounts of F1, F2, and F3 are:
  - a. F1 - 5 wt % to 15 wt %,

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b. F2 - 2 wt % to 10 wt %, and

c. F3 - 1 wt % to 10 wt % and

the total of F1+F2 is at least 13 wt % of the composition. The amount of F1+F2 (at least 13 wt %) in combination with the total amount of F1+F2+F3 (8 to 35 wt %) renders the scope of the claim confusing given that the minimum amounts of F1+ F2 and F1+F2+F3 are 7 wt % and 8 wt % respectively, it is not clear how one can simultaneously obtain a total of F1+F2+F3 of 8 wt % and an amount of F1+F2 of at least 13 wt %.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

8. Claims 15, 20-26, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlosser et al (US 6,255,371) in view of Yakabe et al (US 2002/0151625).

The rejection is adequately set forth in Paragraph 9 of the Office Action mailed on 12/18/2009 and is incorporated here by reference.

With respect to the new the limitation drawn the amounts of the compounds F1, F2, and F3 comprising 8 to 35 wt % of the composition, it is noted that as set forth in Paragraph 9 of the previous Office Action, that the combined disclosures of Schlosser and Yakabe et al disclose that the total amount of F1-F3 is 6 to 40 wt % of the polyamide composition and which overlaps the range of 8 to 35 wt. % recited in the present claims.

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9. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlosser et al (US 6,255,371) and Yakabe et al (US 2002/0151625)) as applied to claims 15, 20-26, and 28-32 above, and in view of Lewis (see attached pages of *Hawley's Condensed Chemical Dictionary*) and Pitts et al (US 3,865,760).

The rejection is adequately set forth in Paragraph 10 of the Office Action mailed on 12/18/2009 and is incorporated here by reference.

10. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schlosser et al (US 6,255,371) and Yakabe et al (US 2002/0151625)) as applied to claims 15, 20-26, and 28-32 above, and in view of Hanabusa et al (US 6,433,045).

The rejection is adequately set forth in Paragraph 11 of the Office Action mailed on 12/18/2009 and is incorporated here by reference.

### ***Response to Arguments***

11. Applicant's arguments filed 4/19/2010 have been fully considered but they are not persuasive.

12. Applicant argues that the amounts of melem disclosed by Schlosser cannot be combined with the flame retardant composition disclosed by Schlosser. However, it is significant to note that Schlosser already teaches a mixture of the compounds F1, F2, and F3. The only difference being that Schlosser does not disclose that amount of F2. It would have been obvious to one of ordinary skill in the art to look to Yakabe which is drawn to a flame retardant glass reinforced

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polyamide composition, in order to determine that amount of F3 to be utilized in the flame retardant composition of Schlosser given that Yakabe discloses that discloses that melamine polyphosphates given that they provide excellent flame retardant and heat resistance properties .

13. Applicant's arguments regarding unexpected Glow Wire Ignition Test (GWIT) results of compositions comprising F1-F2 are not found to be convincing for the following reasons:

Table 1 of the present specification discloses Inventive Compositions 1-4 which comprise the compounds F1 (Formula I with R1 and R2 are ethyl and M is aluminum), F2 (melamine polyphosphate) and F3 (melem); Comparative Composition A comprises the compounds F1 and F2. Of the presented embodiments, the only proper side by side comparison is Comparative A compared to Inventive 1, i.e. both contain identical amounts of compounds F1 and F2. However, it is noted that Inventive A comprises 5 wt % of F3 while the present claims recite an amount of F3 from 5 to 15 wt % of a melamine condensation derivative and the closest prior art of record discloses an amount of F3 melamine condensation derivatives, i.e., melem in the amounts from 2 to 20 wt %. Thus, Inventive Composition 1 is not commensurate in scope with the scope of the closest prior art and the present claims.

The present embodiments are drawn to polyamine compositions comprising a specific polymer, i.e. polyamide, and the specific compounds F1- F3 discussed above. Given that the present claims are drawn to any polymer, and relatively generic reaction product of phosphoric acid and melamine or a reaction product of phosphoric acid and a melamine condensation derivative, and F3 is a melamine condensation derivative, the Inventive Embodiments are not commensurate in scope wit the scope of the present claims.

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Further, it is noted that the present claims require that F1 is from 5 to 15 wt %, F2 is from 2 to 10 wt %, and F3 is from 1 to 10 wt %, and the total of F1+F2+F3 is from 8 to 35 wt %. However, the inventive embodiments comprises 20-22.5 wt % of F1+F2+F3, F1 is 10-12 wt %, F2 is from 5 to 6.5 wt % and F3 is from 1 to 7 wt %. As set forth in MPEP 716.02(d), whether unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support". In other words, the showing of unexpected results must be reviewed to see if the results occurred over the entire claimed range, *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). Applicants have not provided data to show that the unexpected results do in fact occur over the entire claimed range of F1, F2, and F3.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER C. KOLLIAS whose telephone number is (571)-270-3869. The examiner can normally be reached on Monday-Friday, 8:00 AM -5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. C. K./  
Examiner, Art Unit 1796

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796